NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC SCHOOL BULLETINS

MAY 15, 1961, VOL. 39, NO. 30

LAST ISSUE UNTIL FALL

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UMI

Swedish gentry—In a country of modern comforts, gracious living has a traditional setting in the manor house region of Södermanland.

Below, ships at Göteborg carry on the trade that helps keep Sweden rich.

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compulsory health insurance, payments to mothers for children under 16, housing subsidies, nearly-free annual vacations for children, and school lunches.

Swedes call their land "the long country." Sharing the Scandinavian Peninsula with Norway, it reaches almost 1,000 miles from the Baltic Sea to above the Arctic Circle. The largest Scandinavian country, Sweden could hold the six New England states plus New York, New Jersey, and Pennsylvania.

The Gulf of Bothnia on the east, an arm of the North Sea on the west, and the Baltic on the south tempt many Swedes, like their Viking ancestors, to go to sea to seek their fortunes. They trade what they have—the fruit of their forests, factories, and mines—for what they lack—some food and raw materials.

Göteborg, Sweden's largest port (below), hums with the daily bustle of fishing craft, freighters, and shipyards.

UMI

SWEDEN

PHOTOGRAPHS BY ANDREW H. BROWN AND THOMAS NEBBIA (COVER), NGS STAFF

SWEDEN has won fame as one of the most modern and progressive countries in the world. Yet relics of its past remind us that it is one of the oldest. Man has lived on its rocky mountainsides and fertile plains for some 12,000 years.

Crude stone mausoleums built 4,000 years ago still crown Swedish hills. Artists of the Middle Ages carved Viking boats and told of their voyages on some 2,000 rune-stones still scattered about the countryside. Oriental and Roman coins found in Swedish soil tell the extent of Viking travels.

Gripsholm Castle at right, more than 400 years old, rises from a small island in Lake Mälaren, 3½ hours by steamer from Stockholm. Its red brick towers overlooking the blue-green lake recall 16th-century splendor. From correspondence between the castle's owner, King Gustav Vasa, and his steward, we learn a little of life in the mansion. The king's sons and daughters once dropped in for a visit of a few weeks. With their retinues they totaled 340 people, and the king's well-stocked larders lost to their healthy appetites 12,700 eggs, 229 barrels of bread, and eight barrels of butter, among other tidbits. On a similar occasion a steward grumbled that 240 steers were not enough to feed the king's guests.

But if royalty feasted, Swedes saw to it that commoners did well, too. Sweden has long cherished freedom for all men. Even the Vikings, who sailed far to raid and trade, coupled with their violence a sense of fair play and belief in the equality of men. While the rest of Europe still struggled under the feudal system, Swedish farmers were represented in the *Riksdag*—the national parliament then and now—which met as early as 1435.

Today Sweden's program of social welfare is one of the most advanced in the world. The country calls its system "the middle way," combining private, cooperative, and government enterprise to finance such benefits as old-age pensions,

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where the Baltic meets Lake Mälaren. The view of the city on the cover looks through a church grill toward City Hall and St. Gertrud German Church.

Most of Sweden is too rocky, sandy, or swampy for farming. The fertile 8 percent is mostly in the south. But sturdy Swedish farmers, using modern methods, are able to feed most of their countrymen.

Rivers of the north provide abundant power to turn factory wheels.

Forests cover half the nation. Spring sees Swedish rivers loaded with logs on their way downstream to sawmills, and to furniture, match, and paper factories. Swedish wood pulp travels to California to be turned into tissue for wrapping oranges. In Japan it is made into colored lanterns. Argentina converts it to imitation leather. In Pennsylvania it becomes plastic fishing lines. England uses it in newsprint. Italy turns it into rayon stockings.

Swedes also turn out steel, chemicals, textiles, automobiles, porcelain, and machinery. L.B.

The North Country—Miner above prepares to blast out ore in Kiruna iron mine, above the Arctic Circle. Today power plants, mines, sawmills, and railroads bustle in Norrland, once inhabited only by Lapp reindeer herders (below).

NATIONAL GEOGRAPHIC PHOTOGRAPHER THOMAS NEBBIA

UMI

Although the country lies at about the same latitude as Alaska, the Gulf Stream acts as a hot-water bottle, taking the chill off the weather and luring fish to its shores: salmon, cod, herring, mackerel.

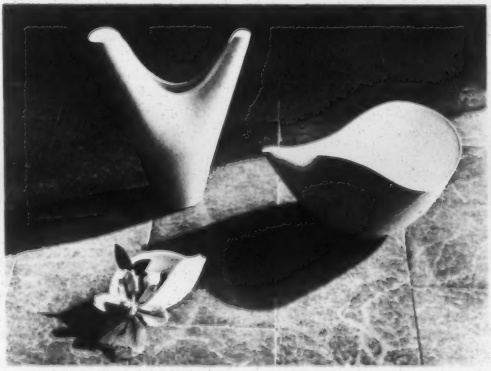
Sweden's south is low, with rolling plains. Wheat, barley, rye, oats, potatoes, and sugar beets ripen in the fields. Cattle graze green meadows. Red or whitewashed farmhouses with neat thatched roofs nestle among the low hills.

Central Sweden is a hilly plateau sloping east from the mountains of the Norwegian border. Farmland gives way to forests of beech, pine, and birch, shimmering lakes, iron mines, and industrial cities.

NATIONAL GEOGRAPHIC PHOTOGRAPHER THOMAS NEBBIA

Stockholm shopping: In the NK department store Swedes select goods from a cosmopolitan range that includes such Swedish items as modern furniture, Orrefors glass (left), and ceramics (below). Swedish arts and crafts have earned acclaim around the world.

AMERICAN-SWEDISH NEWS EXCHANGE, BELOW AND LEFT



North lies mountainous Norrland, its lower section threaded with racing rivers, its northern area a region of rocky, barren moors where nomadic reindeer herders hunt scarce pasture. Sawmills and iron mines dot the area.

Lakes cover about 8 percent of the country. Stockholm, the capital, as well as a commercial, cultural, and industrial center, spreads across a chain of islands

DAVID S. BOYER (BELOW) AND WALTER M. EDWARDS, NGS STAFF

Men risk Potomac rapids (above) and girls laze on a Mississippi houseboat (below), but the waters go their own way, winding somewhere safe to sea. How rivers and men interact has been examined in this series.

Now "white water" canoeists face the rapids for sport. Not recommended for the inexperienced, waters like the Potomac Gorge (left) offer exhilarating (and not always dry) rides for experts. Emulators of the pioneers today also paddle off to camp along riverbanks.

For the less muscular, motorboats are multiplying rapidly. The flotilla below is on the Mississippi near Alton, Illinois. The houseboat in the foreground offers all the comfort of a house trailer—and a smoother ride.

There has been a tremendous increase in boating in recent years. Particularly popular are the small outboard runabouts that can be carried on a trailer to any water desired. With more leisure time and more money, Americans crowd to the waterways in such numbers that some places already have floating traffic jams.

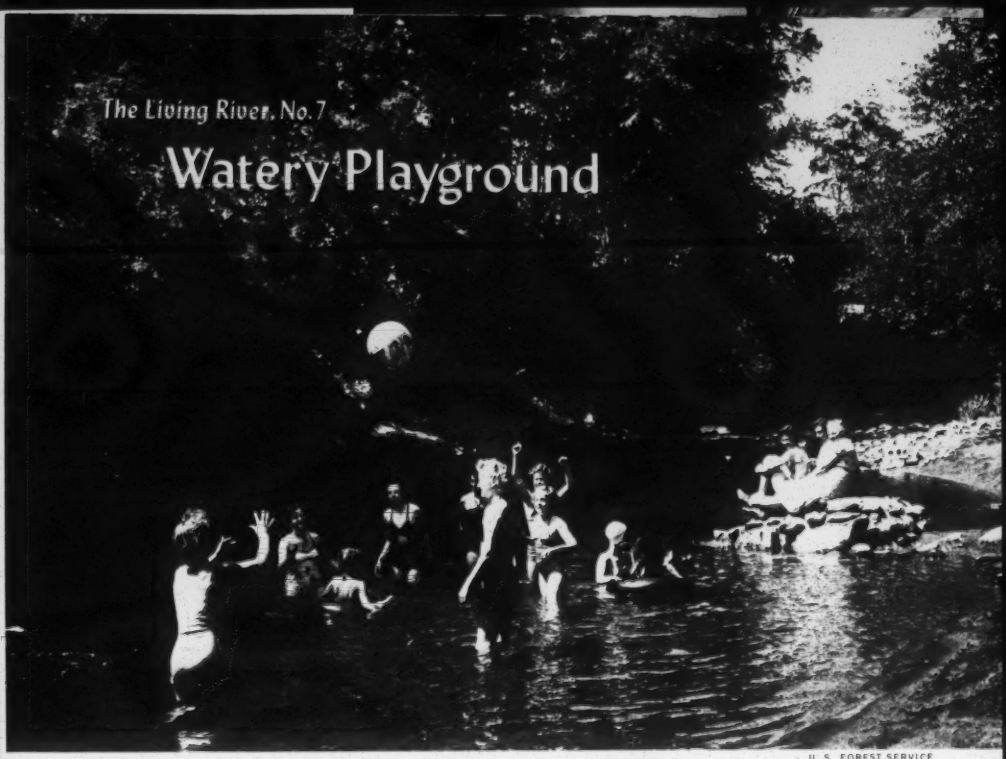
Soon, it seems, rivers will have as many people in them as fish. Aqua-Lungs free swimmers from the limitations of their own lungs; water skis free them from the law of gravity—sometimes.

Human demands for watery fun increase every year. If they are to be met, man must look to the health of the living river. F.S.

UMI

The Living River, No. 7

Watery Playground



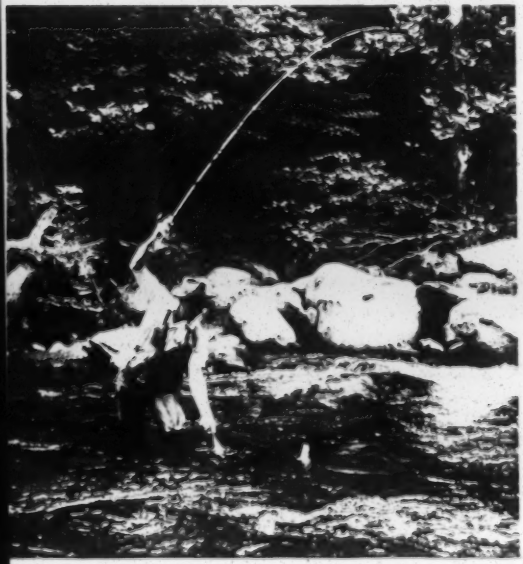
U. S. FOREST SERVICE

THE RIVER is generous, powerful, life-giving, and in danger of death, as we have seen in this series. It is also a lot of fun.

As vacation time approaches, more Americans than ever before are planning to enjoy some familiar stream—either its comfort or its sport. The ladies above play in the currents of Oregon's Applegate River. Some benefit from its coolness without bothering to get wet.

America's most popular participant sport is fishing. It has been said that the necessities of the past are the sports of the present. The motives of the angler below are about as different as they can be from those of the hungry pioneers who fished this stream.

FRANK SARTWELL, NATIONAL GEOGRAPHIC STAFF



He is netting a 10-inch trout on the West Fork of the Little Pigeon River in the Tennessee section of the Great Smoky Mountains National Park. This stream has been set aside for "fishing for fun." There is no closed season; a man may fish anytime he desires. There is no limit; he may catch as many trout as he can bamboozle into taking his fly. But he must put them all back into the river unharmed. This plan offers all the fun of fishing without depleting the fish—and no one has to clean his catch.

Another fun-filled activity that stems from old-time hard work is canoeing. Once Indian craft offered the best way to explore a new continent.

iments got out of hand when nutrias outwitted their captors and escaped.

Where the fugitives found a sweep of marshland like that along Louisiana's coast (above), they found a habitat to their liking. Today hordes of them paddle with their webbed hind feet along the bayous, feeding on cattails, reeds, swamp grass—or farm crops.

Six pairs were introduced into Louisiana in 1939. Now they number in the millions, the largest concentration in the country. This biological explosion has been generated by the nutria's rapid breeding. A female can produce five litters in two years.

The sudden influx has Fish and Wildlife experts worried. The newcomer competes with muskrats for food, scares away migrating waterfowl, and makes life miserable for marshland farmers. Predators and disease, two factors which often help nature maintain its delicate balance, have not taken their customary toll.

Trappers who roam the marsh in wooden pirogues do their best to hold down the population. Last year Louisiana trappers brought 460,000 pelts to market—all but 3,000 of the United States total. Nutria trails muskrat and surpasses mink in dollar value in the nation's foremost fur-producing State. The trapper above carries a day's catch to the cabin to skin and dry.

But the demand for the dark-amber pelt is not unlimited, even if its supply seems to be. Enthusiasts foresaw the nutria as the "poor girl's mink." But economics so far have been against it. So much hand labor is required to sew pelts together that 90 percent of all skins trapped in this country are shipped to Europe for processing. The skins return as an expensive coat. The high cost cuts demand, bringing down the market price of pelts and discouraging intensive trapping.

For the farmer, the nutria spells nothing but trouble. If the animal isn't feasting on his rice, sweet potatoes, or corn, he's digging holes in the levees. This allows water to drain out of flooded rice fields, and flow into dry potato patches.

But if the nutria can be appalling in the plural, it is appealing in the singular. At right Nora Lynch holds a several-weeks-old kitten. Nora's pride will grow into a lovable pet, easily handled, quiet, clean—and completely unaware of the bad reputation earned by its fast-multiplying kinfolk.

A.P.M.

UMI

PHOTOGRAPHS BY NATIONAL GEOGRAPHIC PHOTOGRAPHER ROBERT F. SISSON

NUTRIA – Innocent Villain

THIS BUCK-TOOTHED, furry swamp dweller can teach an important lesson in biology and the balance of nature.

Meet the nutria, innocent villain. The perpetrator of the plot is man, who uprooted the animal from its natural home and transported it to another continent.

Even before man's interference, the nutria was a bundle of contradictions. His name is Spanish for otter (which Spanish explorers mistook him to be), but he is actually a rodent. He has a head like a beaver, ears like a mouse, and a body the size of a dachshund. He makes a noise like a pig.

Half a century ago the nutria *(Myocastor coypus)* had been almost exterminated from its native haunts in southern South America to meet the demand for its fur in European salons. Several promoters, to save the species and turn a profit, imported the nutria into the United States where they started fur farms. The exper-

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